

**Amendment to the Claims:**

This listing of claims will replace all versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1- 18 (Canceled)

19. (Currently Amended) A method for a wireless base unit to select an operating frequency, comprising:

~~determining~~detecting for each of a plurality of frequencies whether another base unit is using each of the plurality of frequencies within range of the wireless base unit; and

selecting the operating frequency based on whether another base unit is detected using the selected frequency, wherein the selected operating frequency is a least used non-overlapping frequency of the plurality of frequencies;

wherein the detecting and selecting steps are performed by the wireless base unit.

20. (Canceled)

21. (Currently Amended) The method of claim 19, further comprising:

sending a request signal requesting base units receiving the signal respond to the request signal;

wherein the ~~determining~~detecting step further comprises waiting for a response to the request signal.

22. (Previously Presented) The method of claim 21, wherein the request signal is sent on each of the plurality of frequencies.

23. (Currently Amended) The method of claim 21, the ~~determining~~detecting step further comprising waiting a predetermined time period for the response to the request signal.

24. (Previously Presented) The method of claim 21, wherein the predetermined time is at least 10 milliseconds.

25. (Previously Presented) The method of claim 24 wherein the request signal is one of a probe request packet, a find router packet and a router identification packet.

26. (Previously Presented) The method of claim 21 further comprising sending the request signal at least three times.

27. (Previously Presented) The method of claim 21, further comprising measuring the signal strength of the response to the request signal.

28. (Currently Amended) A method for a wireless base unit to select an operating frequency, comprising:

detecting other base stations operating on each of a plurality of frequencies within range of the wireless base unit;

obtaining information concerning the load on the other base stations within range of the wireless base unit;

selecting the operating frequency based on the load on the other base stations within range of the wireless base unit;

wherein the detecting, obtaining and selecting steps are performed at the wireless base unit.

29. (Previously Presented) The method of claim 28, further comprising:

sending a request signal requesting base units receiving the signal respond to the request signal;

wherein the obtaining step further comprises receiving load data from a data field in the response to the request signal from other base stations.

Claims 30-35 (Canceled)

36. (Currently Amended) An access point, comprising:

a transceiver operative to transmit and receive signals on any of a plurality of frequencies, and

a controller suitably adapted to set an operating frequency for the transceiver selected from the plurality of frequencies co-located with the transceiver;

wherein the transceiver being responsive to the controller to scan a plurality of frequencies to enable the controller to ascertain a number of other access points operating at each of the plurality of ~~access points~~ frequencies within range of the transceiver; and

wherein the controller is configured to select the operating frequency based on the number of other access points detected operating at each of the plurality of frequencies by the controller.

37. (Previously Presented) The access point of claim 36,

the controller further being configured to select the operating frequency by selecting the least used non-overlapping frequency of the plurality of frequencies.

38. (Previously Presented) The access point of claim 36,

wherein the transceiver is further responsive to the controller to send a request packet on each of the plurality of frequencies; and

the transceiver waiting for a response to the request packet.

39. (Previously Presented) The access point of claim 38, wherein the transceiver measures the signal strength of the response to the request packet, the controller being responsive to the transceiver to select the operating frequency based on the number of access points operating at each of the plurality of frequencies and the signal strength.

40. (Previously Presented) The access point of claim 38, the response to the request packet further comprises a data field indicative of the load of the other access point responding to the request packet, the controller being responsive to the transceiver to select the operating frequency based on the number of access points operating at each of the plurality of frequencies and the load of the other access points.

41. (Previously Presented) The access point of claim 40, wherein the transceiver measures the signal strength of the response to the request packet, the controller being responsive to the transceiver to select the operating frequency based on the number of access points operating at each of the plurality of frequencies the signal strength of the response to the request packet, and the load of the other access points.

42. (Currently Amended) An access point comprising:

a transceiver operative to transmit and receive on any of a plurality of frequencies; and  
a controller operative to set the operating frequency selected from the plurality of frequencies for the transceiver co-located with the transceiver;

wherein the controller is operative to select the operating frequency based on at least one of ~~the~~ a number of other access points detected operating at each frequency within range of the transceiver; the measured signal strength of signals received from other access points operating at each frequency received by the transceiver and a load of other access points operating at each frequency received by the transceiver.

43. (Previously Presented) The access point of claim 42, wherein the controller is further operative to select the operating frequency based on which frequency will cause the least amount of interference with communications being conducted by other access points.

Claims 44 – 48 (Canceled)

49. (New) A system comprising:

a plurality of access points;

wherein each of the plurality of access points is configured to independently scan a plurality of operating frequencies to detect operating frequencies of other of the plurality of access points; and

wherein each of the plurality of access points is configured to independently select an operating frequency based on a characteristic of the other of the plurality of access points detected to minimize interference.

50. (New) A system according to claim 49, wherein the characteristic of the other of the plurality of access points is how many of the other of the plurality of access points are detected.

51. (New) A system according to claim 49, wherein the characteristic of the other of the plurality of access points is a non-overlapping frequency.

52. (New) A system according to claim 49, wherein the characteristic of the other of the plurality of access points is a load on the other of the plurality of access points detected.

53. (New) A system according to claim 49, wherein the characteristic of the other of the plurality of access points comprises non-overlapping frequencies, signal strength and load.

54. (New) A system according to claim 53 wherein highest priority is given to non-overlapping frequency and second highest priority is given to signal strength.